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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,060

11/26/2003

Stanislav V. Zhilkov

ZHILIKOV-2

8625

7590

12/29/2004

Albert T. Keyack
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EXAMINER

SPECTOR, DAVID N

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 12/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,060

Applicant(s)

ZHILKOV, STANISLAV V.

Examiner

David N. Spector

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: DETAILED ACTION.

DETAILED ACTION

Defective Oath/Declaration

The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02. The oath or declaration is defective because: it improperly identifies the provisional application 60/429,023, filed 11/25/2002 as belonging to the instant application.

Specification – Objections

A substitute specification in idiomatic English is required pursuant to 37 CFR 1.125(a) because the instant specification is replete with semantic defects and errors that render its meaning unclear (e.g. “transfiguration” surface; “transforming surface”; the entire discussion of the “t-pulses”; and many other defects and errors (e.g. listing of references at the end of the specification with numerical call-outs in square brackets throughout body of the specification; headings, and the arrangement/content of the specification; etc). Appropriate revisions/corrections are required, in proper idiomatic English, and in compliance with 37 CFR 1.52(a) and (b). A substitute specification filed under 37 CFR 1.125(a) must only contain subject matter from the original specification and any previously entered amendment under 37 CFR 1.121. If the substitute specification contains additional subject matter not of record, the substitute specification must be filed under 37 CFR 1.125(b) and (c).

Drawings - Objection

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, at least the periodic surface disposed on the dielectric coupling structure (e.g. “transforming surface”) and the electromagnetic field components (e.g. “delayed wave” above said coupling structure must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Additionally, the numbering of features in FIG. 1 and FIG. 2 is inconsistent, as currently presented. Further, the vacuum housing is improperly illustrated in FIG. 2. Proposed drawing corrections or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 2873

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, claim 1 is replete with semantic defects and punctuation errors that render its intended meaning unclear. Furthermore, the functional language extant in the current claims (e.g. "an electromagnetic beam is sent..."; "whereby said em-beam partially transforms into a delayed electromagnetic beam...") must be replaced with clear structural features/limitations that clearly establishes the metes and bounds of the claim(s) to be patented. Correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, is rejected under 35 U.S.C. 102(b) as being anticipated by Yamada (U.S. Patent No. 6,448,850). *Examiner's Note: Since the intended meaning of claim 1 is unclear, the following rejection is based on the examiner's overall/subjective impression of the intended metes and bounds of the claim.* Yamada discloses apparatus for producing the sequence of terahertz electromagnetic pulses by a driven particle beam comprising: an initial electromagnetic beam 4 sent to a metal-dielectric structure (e.g. the entire apparatus shown in Yamada's FIG. 1 includes a dielectric plate 6 and metal electrodes 9, 10) whereby said beam partially transforms into a delayed electromagnetic wave, and a beam of charged particles is sent to said structure 6 whereby the particles' kinetic energy partially transforms into energy of the delayed electromagnetic wave having the same phase-frequency characteristics as transformed field of said beam 4 (col. 4. In. 19-60). Claim 1 is therefore anticipated by Yamada.

Double Patenting Rejection

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969). A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of copending Application No. 10/447,869. Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the features/limitations recited in the body of the instant claim 1 are included in the recitation of claim 1 in the aforesaid copending application. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Other Remarks/Information

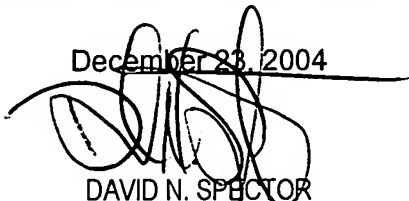
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any other inquiry concerning this communication or earlier communications from the examiner should be directed to David N. Spector whose telephone number is (571) 272-2338. The exam-

Art Unit: 2873

iner can normally be reached at this number Monday through Friday between 6:00 AM and 2:30 PM. The fax number for the organization where this application is assigned is (703) 872-9306.

December 23, 2004

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke extending to the right.

DAVID N. SPECTOR
PRIMARY EXAMINER